

City of Memphis Section 16-85. Required Sampling, Recording, and Reporting  
(Shelby County Section 3-7. Required Sampling, Recording, and Reporting)

For the purpose of enforcement of required sampling, recording and reporting, Chapter 1200-3-10 of the Tennessee Air Pollution Control Regulations, as effective on January 1, 1998, is hereby adopted by reference as a portion of this Code. Such regulations and/or all such additions, deletions, changes and amendments as may subsequently be made shall become a part of this code and shall have the same effect as if set out in full herein.

(City of Memphis Ord. No. 4320, effective 6-7-95; Shelby County Ord. No. 159, effective 5-14-95. Amended by City of Memphis Ord. No. 4636, effective 1-7-99; amended by Shelby County Ord. No. 203, effective 9-18-98. Pursuant to T.C.A. 68-201-115.)



RULES  
OF THE  
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
BUREAU OF ENVIRONMENT  
DIVISION OF AIR POLLUTION CONTROL

CHAPTER 1200-3-10

REQUIRED SAMPLING, RECORDING , AND REPORTING

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## (1) NEW FACILITIES

- (a) There shall be provided for any stack or duct adequate facilities as follows:
  - 1. Sampling ports of a size, number and location as the Technical Secretary may require;
  - 2. Safe access to each port; and
  - 3. Such other sampling and testing facilities as the Technical Secretary may require.
- (b) The Technical Secretary may at his discretion require the applicant for an operating permit to conduct or have conducted such tests as are necessary to establish the amount of air contaminants emitted from such equipment or apparatus. Such tests shall be conducted in a manner approved by the Technical Secretary. The Technical Secretary may require that such tests be conducted in the presence of his representative.
- (c) The Technical Secretary may conduct tests of air contaminant emissions from any source. Upon request of the Technical Secretary the person responsible for the source to be tested shall provide, at no expense to the Technical Secretary, reasonable and necessary openings in stacks, vents and ducts, along with safe and easy access thereto including a suitable power source to the point of testing for proper determination of the level of air contaminant emissions.

## (2) EXISTING FACILITIES.

- (a) Whenever the Technical Secretary has reason to believe that the emission limits of the regulations set forth herein are being violated, he may require the owner to conduct or have conducted at the owner's expense, tests to determine the emission level of specific air contaminants. The Technical Secretary may require that such tests be conducted in the presence of his representative.
- (b) The Technical Secretary may at his discretion require the applicant for an operating permit to conduct or have conducted such tests as are necessary to establish the amount of air contaminants emitted from such equipment or control apparatus. Such tests shall be made at the expense of the applicant and shall be conducted in a manner approved by the Technical Secretary. The Technical Secretary may require that such tests be conducted in the presence of his representative.
- (c) The Technical Secretary may conduct tests of air contaminant emissions from any source. Upon request of the Technical Secretary the person responsible for the source to be tested shall provide, at no expense to the Technical Secretary, reasonable and necessary openings in stacks, vents, and ducts along with safe and easy access thereto including a suitable power source to the point of testing for proper determination of the level of air contaminant emissions.

## (3) PERIODIC TESTING REQUIRED.

- (a) The Technical Secretary may require the owner or operator of an air contaminant source, as a condition of his operating permit, to conduct or have conducted periodic tests to establish the amount of air contaminants emitted. The nature, extent, and frequency of such required testing shall be specified in the operating permit. Such tests shall be made at the expense of the owner or operator and shall be conducted in a manner approved by the Technical Secretary. The Technical Secretary shall be supplied with such data as stipulated in the operating permit.
- (b) Any person affected by any of these regulations and directed to do so by the Technical Secretary, shall file emission data, as a minimum of one year, with the Technical Secretary on forms available from the Secretary.

Authority: T.C.A. §§68-201-105 and 4-5-202. Administrative History: Original Rule certified June 7, 1974.

## (1) MONITORING OF EMISSIONS

- (a) The Technical Secretary may require the owner or operator of any air contaminant source discharging air contaminants, at the expense of the owner or operator, to install, calibrate, operate and maintain such monitoring equipment as the Technical Secretary shall prescribe; sample such emissions in accordance with methods as the Technical Secretary shall prescribe; establish and maintain such records; and make periodic emission reports as required in paragraph (2).
- (b) 1. The specific source categories listed below are required to complete the installation and performance testing of the respective equipment and begin maintaining and recording within 18 months of the effective date of each rule.
  - (i) Fossil fuel-fired steam generators, as defined in Rule 1200-3-16-.02, except as provided in the following items, with an annual average capacity factor of greater than 30 percent, as reported to the Federal Power Commission for calendar year 1974, or as otherwise demonstrated to the Technical Secretary by the owner or operator, shall conform with the following monitoring requirements:
    - (I) A continuous monitoring system for the measurement of opacity shall be installed, calibrated, maintained and operated by the owner or operator of any such steam generator of greater than 250 million BTU per hour heat input except where:
      - I. gaseous fuel is the only fuel burned, or
      - II. oil or a mixture of gas and oil are the only fuels burned and the source is able to comply with the applicable particulate matter and opacity regulations without utilization of particulate matter collection equipment, and where the source has never been found, through any administrative or judicial proceedings, to be in violation of any visible emission standard of these regulations.
    - (II) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated on any fossil fuel-fired steam generator of greater than 250 million BTU per hour heat input which has installed sulfur dioxide pollutant control equipment.
    - (III) A continuous monitoring system for the measurement of the percent oxygen or carbon dioxide shall be installed, calibrated, operated, and maintained on fossil fuel-fired steam generators where measurements of oxygen or carbon dioxide in the flue gas are required to convert sulfur dioxide continuous emission monitoring data to units of the

emission standard.

- (ii) Each sulfuric acid plant of greater than 300 tons per day production capacity, the production being expressed as 100 percent acid, shall install, calibrate, maintain and operate a continuous monitoring system for the measurement of sulfur dioxide for each sulfuric acid producing facility with such plant.
  - (iii) Each catalyst regenerator for fluid bed catalytic cracking units of greater than 20,000 barrels per/day fresh feed capacity shall install, calibrate, maintain and operate a continuous monitoring system for the measurement of opacity.
2. Any source which is subject to a regulation in Chapter 1200-3-16 or which is scheduled for retirement within five years of the effective date of the appropriate designating subparts of part 1. above, provided that adequate evidence and guarantees are provided that clearly shows that the source will cease operation prior to such date, will not be subject to the monitoring requirements of this subparagraph.
- (c) 1. All monitoring equipment specified in this paragraph shall meet the performance specifications in the Federal Register, Volume 40, No. 194, October 6, 1975. The equipment shall also be installed, calibrated, operated, and maintained in accordance with the procedures in this reference.
2. (Reserved)
3. A 30-day notice shall be given to the Technical Secretary of the date upon which any sampling or testing will be conducted as required under this subparagraph.
4. The sampling point for continuous emission monitoring shall be representative of the concentration of the parameter being monitored at the source emission point. If the monitor is located at any position except the stack, the Technical Secretary will require evidence of the representativeness of the location.
- (d) 1. Each owner or operator of any air contaminant source directed by the Technical Secretary to monitor and report on specified air contaminants shall develop and submit a detailed monitoring program; and order and install sampling equipment within the following time schedule:
- (i) Within 60 days after designation by the Technical Secretary of those air contaminants to be monitored, the owner or operator of the air contaminant source shall submit a detailed monitoring program for approval by the Technical Secretary.
  - (ii) Within 30 days after the monitoring program has been approved in writing by the Technical Secretary, sampling and monitoring equipment shall be ordered. The order shall specify a delivery date that is as expeditious as possible.



- (iii) Within 90 days after delivery of the equipment the owner or operator of the air contaminant source shall place said equipment in effective operation in accordance with its approved monitoring program.

- 2. Any owner or operator required by subparagraph (b) to monitor must follow the schedule outlined in part 1. above with the exception that the detailed monitoring program must be submitted to the Technical Secretary within one hundred twenty (120) days of the effective date of the appropriate designating subpart of subparagraph(b) and not as specified in subpart (i) of the above part 1.

(e) Monitoring System Malfunction.

Due allowance for failure to monitor shall be made during any period of monitoring system malfunction, provided that the source owner or operator shows, to the satisfaction of the Technical Secretary, that the malfunction was unavoidable and is being repaired as expeditiously as practicable and that a log of all such malfunctions is being kept by the owner or operator, including time malfunction began, when it was detected, what was wrong, what was done to correct the malfunction, and when the malfunction was corrected.

- (f) Owners and operators of fossil fuel-fired steam generators that install a continuous sulfur dioxide monitoring system as provided in Rule 1200-3-12-.04 are required to complete the installation and performance testing of the applicable equipment and begin maintaining and recording within eighteen months of the effective dates of this subparagraph unless a revised time frame is agreed to by the Technical Secretary because of the installation of sulfur dioxide control equipment.

- 1. The owner or operator shall develop and submit a detailed monitoring program; and order and install measuring equipment for sulfur dioxide and either oxygen or carbon dioxide within the following time schedule:

- (i) Within 150 days after the effective date of this subparagraph, the owner or operator shall submit a detailed monitoring program for approval by the Technical Secretary.
- (ii) Within 30 days after the monitoring program has been approved in writing by the Technical Secretary, sampling and monitoring equipment shall be ordered. The order shall specify delivery date but as expeditiously as possible.
- (iii) Within 90 days after delivery of the equipment the owner or operator of the air contaminant source shall place said equipment in effective operation in accordance with the approved monitoring program.

- 2. The sampling point for the carbon dioxide or oxygen monitor shall be same as that for the sulfur dioxide monitor except as specified for installations using flue gas desulfurization systems.

- (g) Owners and/or operators of sources required to install a continuous sulfur dioxide monitoring system as provided in Paragraph 1200-3-12-.04(3) are required to complete the installation and performance testing of the applicable equipment and begin maintaining and recording within twelve months of the effective date of this subparagraph.

(2) RECORDING AND REPORTING

- (a) Records and reports as the Technical Secretary shall prescribe on air contaminant emissions, ambient air concentrations, or fuel analyses shall be recorded, compiled and submitted in a format prescribed by the Technical Secretary.
- (b)
  - 1. Owners or operators of facilities subject to subparagraph (1)(b) of this rule, are required to submit a written report of excess emissions for each calendar quarter and the nature and cause of the excess emissions, if known. The requirements of this subparagraph must be followed by all owners and operators when making these required reports.
  - 2. For opacity measurements the summary shall consist of the magnitude in actual percent opacity of all one minute averages of opacity greater than the opacity standard in the applicable rule in Chapter 1200-3-5 for each hour of operation and the facility minus the five-minute exempt period.

Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced, instantaneous opacity measurements per minute. The averaging period used for data reporting is one minute for opacity measurements and one hour for measurements of sulfur dioxide; provided, however, that for opacity measurements for fuel burning installations with fuel burning equipment of input capacity greater than  $600 \times 10^6$  Btu per hour, the summary shall consist of the magnitude in actual percent opacity of all six-minute averages of opacity greater than the opacity standard in the applicable plan for each hour of operation of the facility minus one six-minute exempt period per hour of no more than 40 percent opacity. Averaging values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of twenty-four equally spaced, instantaneous opacity measurements per six-minute period. The averaging period for data reporting is six minutes for opacity measurements and twenty-four hours for measurements of sulfur dioxide for fuel burning installations with fuel burning equipment of input capacity greater than  $600 \times 10^6$  BTU per hour. The averaging period used for data reporting from all other sources is one minute for opacity measurements and one hour for measurements of sulfur dioxide except as denoted in other Chapters of these regulations.

- 3. For gaseous measurements the summary shall consist of emission averages, in the units of the applicable standard, for each averaging period during which the applicable standard was exceeded.
- 4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and

span checks, and the nature of system repairs or adjustments shall be reported. The Technical Secretary may require proof of continuous monitoring system performance whenever system repairs or adjustments have been made.

5. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.
  6. Maintain a file of all information reported in the quarterly summaries, and all other data collected either by the continuous monitoring system or as necessary to convert monitoring data to the units of the applicable standard for a minimum of two years from the data of collection of such data or submission of such summaries.
  7. Owners or operators of air contaminant sources subject to subparagraph (1)(b) of this Rule are required to use the procedures outlined in the October 6, 1975, Federal Register, Vol. 40, No. 194 (Appendix P, Paragraph 5.0), Page 46249 for converting monitoring data to units of the standard where necessary. These procedures are essentially the same as those in subparagraphs 1200-3-16-.02(6)(e) and (f). Where applicable, the procedures outlined in the October 12, 1976, Federal Register, Volume 41, Number 198, pages 44838-44839 may be used.
- (c) Owners or operators of facilities subject to rule 1200-3-12-.04 are required to submit a written report on emissions for each calendar quarter and the nature and cause of excess emissions, if known. The Technical Secretary will specify details of the reports required after the monitor has been performance tested. General procedures are outlined below.
1. (i) The source owner or operator shall report all 3-hour averages in excess of the applicable emission standard or all 24-hour averages in units of the applicable emission standard. The 3-hour and 24-hour values shall be computed by taking the average of three contiguous or 24 contiguous one-hour values of sulfur dioxide emissions. The one-hour average values may be obtained by integration over the one-hour period or be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages.
  - (ii) In the event that the fuel burning installation contains discharge points utilizing continuous sulfur dioxide monitoring systems and discharge points which do not require monitoring systems (or where an individual monitoring system is inoperative), and the data from the monitoring system indicates a violation, an administrative hearing may be conducted by the Technical Secretary to determine the compliance status of the entire fuel burning installation.
  - (iii) To determine compliance where multiple units of fuel burning equipment are involved, an average weighted on the

basis of heat input shall be used.

2. The owners and operators of these sources must follow the same procedures as specified in parts 4., 5., and 7. of subparagraph 1200-3-10.02(2)(b). Alternative methods for converting sulfur dioxide monitoring instrument data to units of the applicable emission standard may be approved by the Technical Secretary when demonstrated to him to yield equivalent results.

Authority: T.C.A. §§68-201-105 and 4-5-202. Administrative History: Original Rule certified June 7, 1974. Amendment filed January 10, 1977; effective February 9, 1977. Amendment filed March 13, 1978; effective April 12, 1978. Amendment filed May 7, 1979; effective June 21, 1979. Amendment filed October 28, 1981; effective December 14, 1981. Amendment filed January 27, 1993; effective March 13, 1993. Amendment filed January 31, 1997; effective April 16, 1997.

**1200-3-10-.03        REPEALED.**

Authority: T.C.A. §§68-201-105 and 4-5-202. Administrative History: Original rule certified June 7, 1974. Amendment filed May 17, 1974; effective June 16, 1974. Repeal filed February 5, 1979; effective March 21, 1979.



- (1) The provisions of the rule shall apply to all sources required to obtain a major stationary source operating permit in accordance with the provisions of paragraph 1200-3-9-.02(11). Such sources are also subject to the provisions of rule 1200-3-10-.01 and rule 1200-3-10-.02.
- (2) The Technical Secretary is authorized to require by permit condition any periodic or enhanced monitoring, recording and reporting that he deems necessary for the verification of the source's compliance with the applicable requirements as defined in paragraph 1200-3-9-.02(11).
  - (a) Monitoring may include, but is not limited to: source testing; in-stack monitoring; process parameter monitoring of material feed rates, temperature, pressure differentials, power consumption or fuel consumption; chemical analysis of feed stocks, coatings, or solvents; ambient monitoring; visible emissions evaluations; control equipment performance parameters of pressure differentials, power consumption, air or liquid flow rates or amount of air contaminants collected for disposal; air contaminant leak detection tests from process or control equipment; and any other such monitoring that the Technical Secretary may prescribe.
    1. The monitoring must be conducted in a manner acceptable to the Technical Secretary. This includes, but is not limited to: sampling methods, analytical methods, sensor locations and frequency of sampling.
    2. The monitoring method must have at least a 95% operational availability rate to prove compliance directly or indirectly with the applicable requirements unless otherwise stipulated by the Technical Secretary in the permit. Ambient air monitors shall have their minimum operational availability rates prescribed by chapter 1200-3-12. Missing data in excess of these levels shall be grounds for enforcement action.
  - (b) Recordkeeping may include handwritten or computerized records and shall be kept in accordance with the manner approved by the Technical Secretary. The Technical Secretary or an employee of the Department authorized by the Technical Secretary shall have the authority to inspect the records during reasonable hours at the place where such records are kept. The source owner or operator must provide copies of the records to the Technical Secretary upon request. If the records are computerized, the source may provide them to the Technical Secretary in an electronic format compatible with the Department's electronic data processing equipment for initial review. Upon discovery of electronic data that may reveal noncompliance, the Technical Secretary shall ask for hard copy excerpts documenting the noncompliance and the source shall comply with his request. All electronic submittals shall be in "read only" format such that the submittal cannot be written over with different electronic data.
    1. In the absence of a specific recordkeeping procedure, it is the general duty of a person required to keep the records required under this rule 1200-3-10-.04 in such a fashion that compliance with the applicable requirement can be readily ascertained.

- (c) Reporting shall be in the manner prescribed by the Technical Secretary in the permit or approved by him in the source's operating permit application.
- (d) All reports submitted to the Technical Secretary shall be signed by a responsible official consistent with the provisions of part 1200-3-9-.02(11)(d)4.

Authority: T.C.A. Section 68-201-105 and 4-5-202. Administrative History:  
Original Rule filed June 29, 1994; effective September 12, 1994.